Fact Sheet

Uranium and Radon in Drinking Water

Washington State Department of Health
Division of Environmental Health

Uranium is a radioactive mineral that is frequently found in rocks and soil. It is especially common in Northeast Washington. When uranium decays, it changes into different elements that are also radioactive, including radon, a gas that is known to cause lung cancer. High levels of uranium and radon have recently been found in some wells in the Colville area, and several counties in Northeast Washington are known to have a high potential for uranium and radon gas.

If you have a private drinking water well in Northeast Washington (Spokane, Pend Oreille, Stevens, Ferry or Okanogan counties), this information is intended to help you make decisions to protect yourself and others who drink your water.

URANIUM

- The main concern with uranium in drinking water is harm to the kidneys. Radioactivity is only of minor concern as naturally-occurring uranium has very low radioactivity.
- Public water systems (those serving 15 or more families) are required to keep uranium levels at or below 30 micrograms (3/100,000th of a gram) per liter to protect against kidney damage.
- There is a small risk that long-term consumption of drinking water containing levels of uranium slightly above 30 micrograms per liter (the standard applied to a public water system) could damage a person's kidneys. At higher concentrations, the risk goes up.
- If you choose to test your water and uranium is found above 30 micrograms per liter, the Washington Department of Health recommends that you consider installing a reverse osmosis water treatment system in your home. Another option is to use an alternative source of drinking water such as bottled water.
- If you choose to install a reverse osmosis system, you should confirm with your local water treatment equipment supplier that the system is approved by the National Sanitation Foundation for use in treating drinking water.

RADON

- Radon is most hazardous when inhaled, not when ingested in drinking water.
- High radon levels in drinking water may suggest elevated radon in indoor air.
- Federal guidelines say that household water should contain no more than 4,000 picocuries of radon per liter (pCi/l). One picocurie equals one-trillionth of a curie, a typical measure of radioactivity.
- Small amounts of radon gas can be released from water during showering and bathing, but much higher exposures result from radon gas seeping into the home from the surrounding soil.

- In areas where there is uranium in the soil or underlying rock, radon gas can seep into homes and other buildings through cracks or holes in the foundation.
- Radon gas is reported to be the second-leading cause of lung cancer in the United States (after smoking). Smoking increases the dangers of radon.
- EPA recommends people take measures to reduce radon if indoor air levels are above 4 pCi/l (picocuries per liter).
- Testing is the only way to know if your home has elevated levels of radon.
- The Department of Health recommends that all residents of Northeast Washington test the air in their homes for radon. Inexpensive test kits are available at most hardware stores or online by searching for "radon test kit" on Internet search engines.
- If you find high levels of radon, the risk can be reduced by lowering the radon level in your home. The main method used is a vent pipe system and fan, which pulls radon from beneath the house and vents it to the outside. Radon contractors may use other methods, depending on the design of the home and other factors.
- For more information about managing radon in private homes, contact Mike Brennan of the Department of Health's Office of Radiation Protection at (360) 236-3253.
- For more information about radon gas, visit: http://www.epa.gov/radon/healthrisks.html

If you don't have your own well, but get your drinking water from a public water supply, the following applies to you:

If you live on a public water system that serves at least 15 homes, *you do not need to test or treat your water for uranium.* Your water supplier is responsible for testing and treating your water so that uranium is kept below levels set by the federal government. However, you should test your home for radon in the air.

If you live on a public water system that serves 14 or fewer homes, talk to your water supplier or homeowner's association about getting the water tested for uranium.

Labs that test water for uranium:

Energy Laboratories, Inc. *Casper, WY* .....(888) 235-0515
STL–Richland *Richland, WA* .....(509) 375-3131
Washington State Public Health Lab *Shoreline, WA* .....(800) 525-0127
(can also test for radon in air and water) .....(206) 418-5494

For more information:
Office of Drinking Water .....(509) 456-3115
Office of Radiation Protection .....(360) 236-3250

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